

Ethical Issues in E-teaching - a Theoretical Framework

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Abstract

The use of IT in third level teaching is increasing worldwide. This can lead to ethical problems. In this paper the attempt is made to develop a framework for the identification of these ethical issues. For that purpose the concepts of ethics and morality are defined and their impact on education is discussed. Starting from this general description, the impact of the use of IT on the ethical side of education is analysed. Finally, an attempt is made to systematise the different angles by developing a formal framework and by identifying concrete ethical issues and locating them in the framework.

1. Introduction:

Computers and IT are increasingly used in classrooms all over the world. This development can be seen as positive, as enabling more people to learn better or as negative, as an undermining of a good way of teaching. Either way, it assumes an imperative character. The academic community has realised this development. A large number of conferences (such as this one) and publications (see references) on the topic testify to this. Despite this high academic interest in the subject there are some topics that have not yet been explored properly. One of them is the question of the ethical impact of e-teaching. In this paper I therefore develop a framework that should allow research of what e-teaching does to ethics and vice versa.

For this purpose I will first lay the groundwork and define the relevant terms. In a second step I will give a brief overview over ethics and education in general. After this the specific ethical aspects of e-teaching will be discussed. From there I will proceed to the second main part, a systematic analysis of the problems. Towards

the end of the article I will discuss some moral problems of e-teaching with regard to the framework. My hope is to find some researchers with similar interests which might allow an international comparison of some of the ethical aspects of e-teaching.

2. Education, Ethics, and E-teaching

In this first main part of the paper I will define and clarify the relevant concepts and present some opinions concerning their relationship. The most complicated of the terms, the one with the longest history and presumably with the most controversial definitions is that of ethics. It is therefore worthwhile to spend a brief section making clear what ethics is understood to mean in this context.

2.1. Ethics and Morality

Ethics and morality are two terms that denote our attempts to come to terms with normative questions. Originally they both mean the same, one coming from the Greek language, the other from Latin. In this paper I will nevertheless make a clear distinction between the two using the term "morality" to denote the factual norms that rule our social interaction and the term "ethics" to speak about the theoretical aspects of morality. This distinction is what I call the "German tradition" of moral philosophy, based on the fact that it is common in applied German moral philosophy [1; 2; 3; 4].

This distinction is not commonly shared in the English speaking world but it allows us to avoid some difficulties when talking about normative questions. Morality in this sense is a positive phenomenon that can be observed and studied. The obligatory nature of morality cannot be explained purely from the given facts of the social norms. This is where ethics comes in. Ethics explains, observes but also justifies morality. This difference between theory and practice is the norm in most academic disciplines (nobody would confuse physics and the physical world) but it is often overlooked in the case of moral philosophy. In our context it is important to observe because the challenges produced by e-teaching are very diverse depending on whether one looks at the theoretical or practical side. This leads to the next point, to the question what ethics has to do with education in general.

2.2. Ethics and Education

One should first ask what education is before looking at the ethical side. This is another difficult question that cannot be answered in the confines of this paper. It should be clear, however, that education, that teaching is a complex social process that does not serve one single purpose. To teach, according to Webster's New World Dictionary means, among other things, to provide with knowledge or insight. One could ask further: what is knowledge. On this path one would come to the fundamental philosophical problems of truth and meaning. Again, I will not be

able to go into this but it should be clear that education and teaching are more than the forcing of accepted knowledge on students. It has more to do with an understanding of the world, with the ability to reason, with the growth of character and personality. Even though I suppose most people who work in a teaching function are aware of this it helps to remind ourselves sometimes because it tends to be forgotten, especially when talking about e-teaching. Another reason for this sort of reflection is that any education institution, according to Postman [5], if it is to function well, must have a theory about its purpose and meaning.

Education has been called that what remains when everything else has been forgotten (attributed to Edouard Herriot, quoted after [6]). It clearly is not just an intellectual exercise but it is the acquisition of the *habitus*, our internalised way of interacting that allows the individual to act and react in a non-contradictory way [7]. But there is more to education than just the external appearance. Human beings can be defined by their intrinsic thirst for knowledge by their desire to understand and reason [8]. Human happiness, as the ultimate goal of life as described by Socrates consists of durable goods, top among them are the knowledge of truth and the ability to think [9].

But education does not only further individual goals it also has social utility. As Weber [10] points out, humans have to exercise asceticism, that means they have to overcome their affections in order to participate in the regulated life of modern societies. This task of education is often called character formation, the indoctrination of stable routines and attitudes [11]. Admittedly, universities can only function under the general assumption that most of this character formation has already been done (presumably no "normal savage" could ever sit through an hour of lecture) but they play a role in perfecting it.

It is clear that these general roles of education are of high ethical relevance. If morality consists of the factual norms that we follow in order to facilitate social life then education's first goal is to give students the "moral drill" they need. At the same time these moral practices give ample opportunity for ethical reflection. Which sort of morality should we teach students? Do we want them to be disciplined or creative? Education can be said to have the task of mastering the integration of the formal (ethics), the rational (work), the historical (tradition) and the legal (law) into the life of all, which is the state [12].

There are several ethical theories that emphasise the role of education in morality. The underlying question is: how do we get to be moral? Most ethical theories try to determine how moral people should act or why they act in a certain way. However, the question before that would actually have to be how do we become moral people in the first place. One answer to this is given by Kohlberg [13; 14] and his theory of moral development. His framework shows that humans learn to reason morally in a sequence of stages and the development through these stages is initiated by education. Another, older theory concerning the same question is incorporated into virtue ethics as it was founded by Aristotle [15]. As De George [16] puts it: "We are not born virtuous. We become virtuous by practice. Only when our actions become habitual and we have the disposition to exercise the proper mean do we

have the virtue in question". Again, education of some kind or other has to help make us moral.

There are of course also other moral aspects of education. Education determines the standard of living that we can achieve in a given society [17]. This is of moral relevance because it determines the degrees of freedom we have in decision-making and general interaction. Also, the development of the personality can be seen as a moral good per se, independent of how it impacts on society.

Education enables humans to act morally in all areas of life, not least of all in technology [18]. The relationship of technology and ethics is a complex one, but it is clear that in order to achieve a responsible use of technology the individuals will need a considerable amount of education, referring to the facts of life as well as the norms. Especially in the area of IT the importance of an appropriate education has been recognised [19]. It should be clear by now that ethics and education are closely interwoven. The next question will then be how the use of IT affects that relationship.

2.3. Ethics, Education, and IT

In order to see what the effect of e-teaching on the relationship of ethics, morality, and education is the terms should first be defined. In this text e-teaching is understood to be any sort of use of computers and / or IT for the purposes of education. The most important development in the field at present is without doubt the Internet. However, I do not want to limit the definition of e-teaching to one technology but rather leave it open to any technology arising from computers and IT. This includes distance education as well as the use of IT in campus colleges. It further includes all the different aspects of the technology, notably the students' as well as the instructors' view. I will not differentiate the term any further because I am looking for a sufficiently large platform from which to start the research.

E-teaching is increasingly becoming a fact of life for most people involved in education. In 2000 more than 100 colleges in the USA required their students to own or have access to a computer [20]. Colleges increasingly provide network connections for the students and in most Western countries it is the norm for students to be able to connect to the Internet or communicate by email. This development seems quite unstoppable right now and the use of computers and IT for the purposes of teaching is increasingly seen as a crucial factor in the competition between universities or other institutions of higher education [21; 22]. It is generally accepted that teachers must adapt to this development or they will be overpowered by it [23; 24].

The reasons for this development are sometimes hard to fathom and among them there are probably influences of globalisation, of changes in lifestyles and expectations and other similarly intangible factors. However, there are also good educational reasons for introducing CIT into higher-level education classrooms. The positive vision accompanying the development is that learning activities will be connected seamlessly between home, school, community. This allows students

to develop and exercise their problem solving skills anywhere. "The world is their classroom" [25].

Teaching, just like morality, is based on communication and the hope is that the use of modern technology will improve the communicational infrastructure. Whether the mere acquisition of the required technology can really bring about an improvement of communication between students and teachers is another question [26]. Either way, this change in communication is sure to have ethical implications that I will return to later on.

Another change in the fabric of higher education potentially to be brought about by the use of technology concerns the roles of the players. First of all, the use of IT will require new skills and will transform the traditional roles [22]. More interesting and also of higher moral relevance is that it stands to reason that the traditional sort of interaction between teachers and learners will change. Teachers will be able to leave more of the transmission of factual knowledge to technology and will in exchange be able to concentrate more on the task of teaching inciting the students to find solutions, to think. The teacher's role changes from that of the authority to that of the mediator, of the moderator of discourse [27].

Another change to teaching brought about by the use of IT is an increase in the quality linked to a decrease in costs [22], which economically speaking could be called an increase in efficiency. It can be argued that efficiency is in itself an ethical rule [28]. But even those who do not adhere to this idea must admit that better efficiency in education can have morally valuable results. The reach of lectures can be broadened through the use of IT [23] and the group of people who may have a chance of benefiting from higher education would grow. IT can be seen to have an equalising effect on education, providing the best material to a potentially infinite number of students [29].

Of course there is also a downside to this great vision of e-teaching. Many points of criticism result from the failure of technology to live up to the promises just explained. Not everybody agrees that technology in fact improves communication between teachers and learners [21]. Also, it seems dubious that any real progress in pedagogy is made this way [20]. And even supporters admit that there is little evidence to support the positive claims [22].

Apart from the general reproach that e-teaching does not live up to its claims there are also some more specific problems. A central difficulty is the apparent rivalry between technology and content, meaning that the increase in emphasis on technology as a medium of teaching displaces the emphasis on the content of teaching. Especially in the early phases of introducing technology to the classroom or lecture theatre this is a widely spread phenomenon [25; 24]. Partly due to this problem, partly due to the complexity of learning as a cognitive and knowledge oriented process e-teaching often fail to create additional value [26]. In fact, even the great strength of the approach, the improvement in communication is threatened by the usually text-based medium of computers which lacks the non-verbal aspect [23]. Also, e-teaching tends to aim exclusively at the individual and the social character of learning is therefore jeopardised [30].

Finally, there are some broader matters that are affected by e-teaching and that may have an ethical impact. The form of teaching will probably influence the content. This reflects back on the fundamental question on why we learn at collective institutions at all. Some authors are decidedly sceptical about technology's ability to improve on time-honoured social structures [5]. Another objection is the increasing interweaving of the computer industry and education. The Internet is increasingly used for and paid for by commercial interests. At the same time education becomes more and more of a commercial enterprise. These two developments combine in a humungous market in which commercial interest threaten to drive out all other considerations in education [31].

All of these different forces that affect the educational system are sure to leave their mark in many different areas. They are sure to change the role and the qualification of teachers. The entire orientation of education is moving towards vocational purposes, away from education for its own sake. Other social problems can be worsened such as information overload, the blind belief in technology [32].

It seems to me to be obvious that the use of computers and IT in education is leading or will lead to many changes of ethical relevance. Having demonstrated this point the next part of the paper will consist of a collection of ideas dealing with the question how scientific research can address these problems.

3. A Framework for Research of the Ethical Problems of E-Teaching

Before starting to look at how exactly the research could be structured one should ask what its purpose is. Classically one can distinguish between three major directions of ethical research. Ethical theory can be descriptive, normative, or meta-ethical. Descriptive ethics tries to describe the ethical practice, what we have so far called morality. In this sense ethics is a social science that deals with positive phenomena. Unlike most other social sciences, however, ethics is also often understood to be normative. That means that ethics tries to justify morality, that it uses a theoretical framework to determine what would be a good or a bad way to act. Finally, there is the discourse about ethical theories which is often called meta-ethics. Here different ethical theories are compared and checked for viability and consistency.

In this paper I will not go into any sort of meta-ethical discourse even though I believe that for a thorough discussion of the ethical impact of e-teaching this would be required. However, for the development of a research framework this sort of philosophical discourse is not necessary and avoiding it will help avoiding many of the problems that have plagued moral philosophy for the last 2500 years.

The descriptive and normative aspects are much harder to divide. Obviously normative ethics must rely on descriptive ethics to lay the groundwork. If the factual norms and rules followed in a given society are not known then it is impossible to judge them or to improve on them. On the other hand descriptive ethics also depends on the existence of normative ethics. How is the researcher to

decide what is ethically relevant behaviour without some idea of an ethical theory? The two aspects are clearly interdependent. However, they pose highly different challenges with regard to research methodology. The important conclusion that must be drawn from this view at the fundamental problems of ethical research is that it always has a moral quality itself. In this case this means that it is impossible to only enumerate the moral facts of e-teaching but that the very decision to look at them is already a morally laden value judgment. The idea behind it is furthermore to improve the moral quality of e-teaching, even though at this stage we can leave it open what that means exactly and how to go about it.

Having clarified the ethical nature of this research there are two important steps to take in the development of the research framework. Firstly, the different theoretical perspectives should be identified from which the subject can be viewed. Secondly, there are several obvious ethical issues that can already be addressed at this stage and that can be classified according to the perspectives.

3.1. Theoretical Dimensions

In this section I want to collect different dimensions which influence the ethical impact of e-teaching and its perceptions. The first one corresponds to distinction in moral philosophy, in theory, practice and meta-theory. The practice of e-teaching may lead to problems that are theoretically not of relevance and vice-versa. Additionally there could be ethical problems coming from a meta-theory of education that in turn might influence the other two. Again I will leave aside the meta-theory and concentrate on theory and practice. The relationship between these two is again the same for teaching as it was for moral philosophy. Theory needs some sort of fixed point in "real life" but this real life can only be managed and lived on the basis of a theoretical understanding.

The next dimension that influences the ethical character of e-teaching is the sort of subject involved. The traditional subject of ethical theory is the human individual, the person. Most ethical theories refer to the person as the subject which is able and willing to adhere to its rules. Looking closer at the person, a term that is often used to denote a human being able to act morally, one can find that it includes many presupposition. The person is usually believed to be adult, independent, rational without being unemotional. She is (somewhat) intelligent, understands her surroundings, is socialised within her group and wants to participate in shared projects. A first difficulty with the research of the ethics of e-teaching if it is to concentrate on this individual subject is that part of teaching and education is its creation.

Even though the person is the generally supposed subject of morality the exclusive concentration on human individuals in ethical theory leads to problems. In any modern society the individual person quickly comes to the point where her lack of knowledge, power, or other conditions preclude her from acting in a morally responsible way. Increasingly there are collective actors who take over the role of the moral subject from the individual. For the area of e-teaching that is easy to see. Many of the relevant decisions concerning the ethical impact of e-teaching are

made by the institutions and organisations charged with fulfilling the task of teaching. The most obvious candidates for being a moral subject here are schools and universities. However, there are numerous other collectives charged with making ethical choices such as faculties, departments, commissions, etc. Other meso-level actors with potential relevance might be commercial entities such as corporations or social special interest groups such as NGOs. These meso-level subjects pose several serious problems to ethical theory because their moral status is unclear. On the one hand it seems clear that they make decisions and that they affect moral rights and obligations. For example they can decide to introduce a certain technology into teaching or they can force students to buy computers. On the other hand many philosophers are unhappy with attributing the status of a moral subject to such collective entities. It is often argued that it is not the collectives that are morally responsible but the individuals constituting the collectives. If this is so then the central question is not whether collectives are morally responsible but how this can be translated into individual responsibility. This problem is less urgent for descriptive ethics but it is of paramount importance for normative ethics. Should there be moral rules for collective subjects and if so, what should they look like?

Apart from the micro-level of the individual and the meso-level of the organisation, there is a third candidate for being a moral subject on the macro-level, which is the state or society. Clearly society influences ethical matters of e-teaching by its ideas of education in general and by the framework it creates. The state as the legal and formal manifestation of society (if that is what it is) determines what the moral actors on the micro and macro-level can do and in large parts also determines moral behaviour with its legal sanctions. Furthermore it provides a large part of the financing of education and thus has the power to steer developments. Looking at state and society introduces a whole new area of (moral) philosophy to our questions, namely those questions that are traditionally asked by political philosophy. It raises problems of the legitimacy of political decisions and institutions and the basic questions of purpose and organisation of state and society. Since these questions clearly affect the ethical side of e-teaching they have to be addressed. The decision, for example, to introduce computers into every classroom in a given country is one that seriously affects the distribution of resources, the potential access to new technologies, the perception of the role of schools and many other areas. It therefore must be part of this research framework.

The distinctions made so far are the most important ones that should allow us to get a handle on the design of a research project on the ethical issues of e-teaching. They create a field of research that could be imagined something like this:

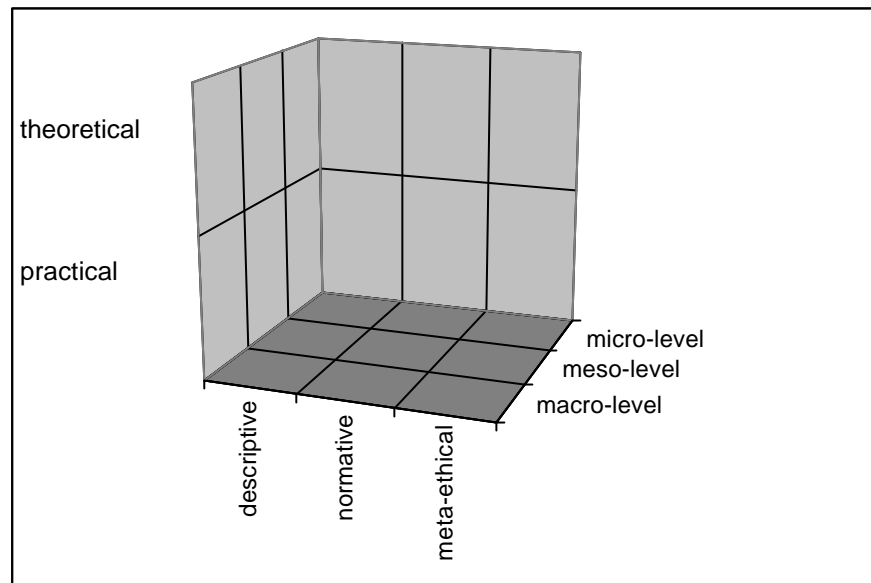


Figure 1: Dimensions of the research framework

This grid should allow a first classification of most of the ethical problems that can be found in e-teaching. There are however, several other distinctions which might prove helpful and which at the same time are obvious enough to be enumerated.

The first of these distinctions is the type of educational institution one looks at. It appears highly probably that the needs, wants, and equipment of, say, schools and universities are quite unlike and therefore the resulting problems will vary. Another distinction that probably applies mostly to universities is whether the institution in question supplies distance or campus education. IT is being introduced in both areas and it often leads to a merging of the two sorts of education offered. Many traditional campus universities move towards distance education because new technology facilitates this step. On the other hand it seems plausible that the problems of these two sorts of universities or third level institutions will differ greatly.

Another obvious distinction is that between teachers and students. For both sides of the educational game there are conceivable threats and opportunities as well as ethical problems. However, these aspects are of a very different quality depending on whether the subject is a teacher or a learner.

If one wants to go deeper into the details of the problem then another step for the progressive structuring might be to look at the technology in question. So far I have only talked about ethical problems of IT in education in general. It stands to reason that these problems will vary with the educational tasks technology is supposed to solve as well as with the depth of use or even with the individual technical solution offered by a specific supplier.

Apart from these theoretical distinctions a framework for researching the ethical issues in e-teaching needs a starting point. This means that it should identify some ethical problems which could then be analysed in the framework just provided.

3.2. Some moral problems of e-teaching

A first problem that is often named as the central ethical issue of computers and IT in general is that of **power** [33; 34]. The use of IT changes the distribution of power by changing the access to information. In an e-learning environment it is easy to see that the traditional balance of power between teachers and learners can change. No matter what this change might look like, it would influence the way people interact, the rules that are considered valid and thus morality.

There are a number of issues resulting from the changing balance of power. Many of them have to do with the notion of **privacy**. Privacy as the right to determine what happens with data concerning a moral subject is maybe the most frequently discussed issue in computer ethics. Questions of privacy are also of relevance for e-teaching. Teachers using IT for the purpose of teaching acquire a whole new dimension of possibilities to infringe students' privacy rights. While so far it was at most possible to check which student participated in classes - and even that only within limits - it is now possible to check exactly which student accesses which site when and how many times.

These new ways of **monitoring** students' activities are doubtlessly ethically relevant but they can also be seen in a more positive light. The ease of checking and compiling students' activities can also facilitate more frequent and thus more convenient tests. For some students this may alleviate the fear of exam papers and exam stress.

Another power issue that refers to the teachers' side is that the use of IT changes power distribution within faculties. Those teachers who are interested in the new technologies and willing to learn will presumably have better chances of promotion. But also those who are not interested may be forced to learn the new technologies. This process which is the norm in commercial organisations will probably also develop in educational institutions.

Surveillance of students can also have the purpose of minimising the success of cheating in examinations. While cheating is a problem as old as school itself it acquires new forms and manifestations in the age of computers and IT. The fact that many essays submitted for marking are not original works but downloaded from the Internet is by now well known. Using IT for testing and marking students may exacerbate the problem

A positive aspect is that IT can facilitate more open and freer ways of acquiring knowledge. Learners will in many cases no longer be bound to certain locations. This is not only a question of convenience but it will allow groups of people access to education who so far were left out. This brings us to the big ethical issue of access.

Access again has several orders of magnitude where it can be relevant. First of all questions of immediate access to technology can be another power issue. It is easier for the teacher to control who has access to his or her course. On the meso-level the question is who has access to a certain institutions and thus education. This question is partly determined by the cost of education and the introduction of IT tends to increase this cost. This brings us to the macro aspect of access. The society must decide who is to have access to what technology. This is again a question of distribution. Does the state feel responsible for providing infrastructure and training? This is a question that society cannot avoid. Even the decision not to decide or to do nothing is a highly ethical one because it would leave the distribution of access to market forces. This would mean that only the relatively well-off would have access. The question of access on the macro level is thus one of social justice. Do we agree to a distribution where the economically poor will be excluded from parts of the educational domain?

But the state can of course not decide to allow everybody unlimited free access to any new technology because of **opportunity costs**. These costs expressing the investments that were not made because of an investment decision are also relevant on all levels of magnitude. The individual student must ask herself whether the money invested in a relatively expensive programme using modern computers is well spent or whether she might be better off choosing a less expensive similar programme and use the rest of the money for other purposes. The same question appears on the agenda of a school, university, or faculty making the decision to introduce IT. Finally, it is most important at government level where the necessary investments are usually substantive. A corollary of the opportunity cost is that investments in educational IT often do not live up to their promises. A particular problem is that most teachers are unsure how to use the technology and that technological considerations obtain predominance over educational ones.

There are many more ethical matters to be taken into account. However, I will end this section by directing attention to a reflective problem. Ethical questions are not natural occurrences but social constructions. As such they depend on the attention of the people in question. Ethical problems of teaching are therefore also a function of the **awareness** they receive. An important part of researching this subject will therefore be the determination of this awareness as well as the question how it can be optimised.

4. Conclusion

The purpose of this article was to develop a framework which would allow the classification and further research of ethical problems as the result of the use of computers and IT in education. Several dimensions were identified which should help this task. Also, some of the obvious issues were noted which will have to be taken into account for the purpose of this research. Instead of a classical conclusion I will offer a table in which these issues are assigned in the research grid. This table should serve as the basis for the discussion of the ideas presented in this paper.

	Theoretical problems	Practical problems	Ethical problems	Moral problems
Macro level	Why e-teaching? Role of education	Infrastructure Access technical training	According to which theory should goods be distributed? When is a social decision legitimate? What is the purpose of education?	Distribution Social Justice Economic questions
Meso level	Introduction of e-teaching?	What system? Organisation of introduction? Distribution of costs?	What is the purpose of the organisation? What are students' and teachers' rights?	Distribution of costs How should e-teaching be organised?
Micro level	Opportunity costs	Use of the system Who trains users? Will teachers or students be forced to use the system? Technology / content problem	Do I agree with the organisation's definitions?	Students: <ul style="list-style-type: none"> • honesty • participation Teachers: <ul style="list-style-type: none"> • privacy • surveillance

Figure 2: Overview over the research framework

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